

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Letters Patent of:
Teddy M Keller et al.

Patent No.: RE39,428

Issued: December 12, 2006

For: HIGH TEMPERATURE ELASTOMERS FROM
LINEAR POLY (SILARYLENE-SILOXANE-
ACETYLENE)

**REQUEST FOR CERTIFICATE OF CORRECTION
PURSUANT TO 37 CFR 1.322**

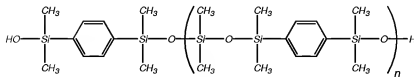
Attention: Certificate of Correction Branch
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Upon reviewing the above-identified patent, Patentee noted a typographical error which should be corrected.

In the Claims:

In Claim 17, column 12, line 55, the formula should appear as follows:



The printed patent shows the right-most oxygen atom outside of the parentheses (see attached copy). Page 3 of the preliminary amendment filed on 03/25/2004 (and entered on 05/18/2006) shows that the formula was amended as shown above (see attached).

The error was not in the application as filed by applicant; accordingly no fee is required.

Transmitted herewith is a proposed Certificate of Correction effecting such amendment.
Patentee respectfully solicits the granting of the requested Certificate of Correction.

Dated: December 13, 2006

Respectfully submitted,

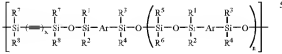
Electronic signature: /Joseph T. Grunkemeyer/
Joseph T. Grunkemeyer

Registration No.: 46,746
US NAVAL RESEARCH LABORATORY
4555 Overlook Ave, SW
Washington, DC 20375
(202) 404-1556
(202) 404-7380 (Fax)
Attorney For Applicant

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What is claimed is:

1. A linear polymer comprising repeating units represented by the formula



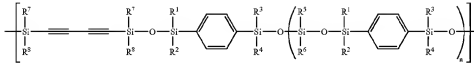
wherein

- (a) n is an integer greater than or equal to 0,
 (b) x is an integer greater than or equal to 1, and



represents an unconjugated acetylenic group when x is equal to 1 or conjugated acetylenic groups when x is greater than 1;

- (c) Ar is an aromatic group, and
 (d) R¹, R², R³, R⁴, R⁵, R⁶, R⁷ and R⁸ are independently selected from the group consisting of alkyl, aryl, alkylaryl, haloalkyl, haloaryl and mixtures thereof.
 2. The linear polymer of claim 1 wherein x is 2.
 3. The linear polymer of claim 1 wherein Ar is phenylene.
 4. The linear polymer of claim 1 wherein R¹, R², R³, R⁴, R⁵, R⁶, R⁷ and R⁸ are CH₃.
 5. The linear polymer of claim 1 wherein n is 0.
 6. The linear polymer of claim 1 wherein n is 1.
 7. The linear polymer of claim 1 wherein n is 2.
 8. The linear polymer of claim 1 wherein n is 3.
 9. A linear polymer comprising repeating units represented by the formula



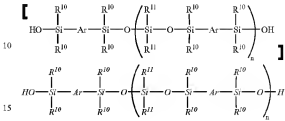
wherein n is an integer greater than or equal to 0, and R¹, R², R³, R⁴, R⁵, R⁶, R⁷ and R⁸ are independently selected from the group consisting of alkyl, aryl, alkylaryl, haloalkyl, haloaryl and mixtures thereof.

10. The linear polymer of claim 9 wherein R¹, R², R³, R⁴, R⁵, R⁶, R⁷ and R⁸ are CH₃.
 11. The linear polymer of claim 9 wherein n is 0.
 12. The linear polymer of claim 9 wherein n is 1.
 13. The linear polymer of claim 9 wherein n is 2.
 14. The linear polymer of claim 9 wherein n is 3.
 15. A linear polymer made by a process comprising the steps of

- (a) reacting hexachlorobutadiene with n-butyl lithium to form 1,4-dilithio-1,3-butadiene,
 (b) reacting the 1,4-dilithio-1,3-butadiene of step (a) with (dimethylamino) (R²-disubstituted-silyl)chlorosilane, wherein each R² is independently selected from the group consisting of alkyl, aryl, alkylaryl, haloalkyl, haloaryl and mixtures thereof, to form 1,4-bis(dimethylamino, R²-disubstituted-silyl)butadiene,
 (c) reacting [1,4-bis(hydroxy-R¹⁰-disubstituted-silyl)-Ar, wherein Ar is an aromatic group, wherein R¹⁰ is independently selected from the group consisting of alkyl, aryl, alkylaryl, haloalkyl, haloaryl and mixtures

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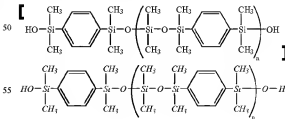
thereof, with bis(dimethylamino)R¹¹-disubstituted-silane, wherein R¹¹ is independently selected from the group consisting of alkyl, aryl, alkylaryl, haloalkyl, haloaryl and mixtures thereof, to form a prepolymer of the formula:



wherein n is an average value greater than or equal to 0, and wherein the value of n is controlled by selecting the initial molar ratio of [1,4-bis(hydroxy-R¹⁰-disubstituted-silyl)]benzene] Ar and bis(dimethylamino)R¹¹-disubstituted-silane, and

- (d) reacting the prepolymer of step (c) with the 1,4-bis(dimethylamino, R²-disubstituted-silyl)butadiene of step (b) to form the linear polymer.
 16. The linear polymer of claim 15 wherein the Ar group is phenylene.
 17. A linear polymer made by a process comprising the steps of
 (a) reacting hexachlorobutadiene with n-butyl lithium to form 1,4-dilithio-1,3-butadiene,
 (b) reacting the 1,4-dilithio-1,3-butadiene of step (a) with (dimethylamino)dimethylchlorosilane to form 1,4-bis(dimethylamino)dimethylsilyl)butadiene,

- (c) reacting 1,4-bis(hydroxydimethylsilyl)benzene with bis(dimethylamino)dimethylsilane, to form a prepolymer of the formula:

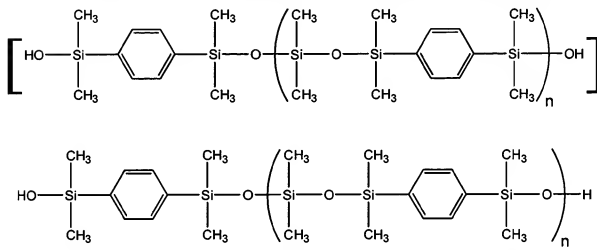


wherein n is an average value greater than or equal to 0, and wherein the value of n is controlled by selecting the initial molar ratio of 1,4-bis(hydroxydimethylsilyl)benzene and bis(dimethylamino)dimethylsilane, and

- (d) reacting the prepolymer of step (c) with the 1,4-bis(dimethylamino)dimethylsilyl)butadiene of step (b) to form the linear polymer.

* * * * *

17. (amended) A linear polymer made by a process comprising the steps of
- (a) reacting hexachlorobutadiene with *n*-butyl lithium to form 1,4-dilithio-1,3-butadiyne,
 - (b) reacting the 1,4-dilithio-1,3-butadiyne of step (a) with
(dimethylamino)dimethylchlorosilane to form 1,4-
bis(dimethylaminodimethylsilyl)butadiyne,
 - (c) reacting 1,4-bis(hydroxydimethylsilyl)benzene with
bis(dimethylamino)dimethylsilane, to form a prepolymer of the formula:



wherein *n* is an average value greater than or equal to 0, and wherein the value of *n* is controlled by selecting the initial molar ratio of 1,4-bis(hydroxydimethylsilyl)benzene and bis(dimethylamino)dimethylsilane, and

- (d) reacting the prepolymer of step (c) with the 1,4-bis(dimethylaminodimethylsilyl)butadiyne of step (b) to form the linear polymer.

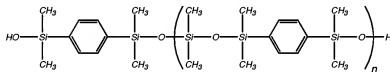
UNITED STATES PATENT AND TRADEMARK OFFICE CERTIFICATE OF CORRECTION

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PATENT NO. : RE39,428
APPLICATION NO. : 10/817,440
ISSUE DATE : December 12, 2006
INVENTOR(S) : Teddy M Keller et al.

It is certified that an error appears or errors appear in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 12, line 55, the formula should appear as follows:



MAILING ADDRESS OF SENDER (Please do not use customer number below):
Joseph T. Grunkemeyer
US NAVAL RESEARCH LABORATORY
4555 Overlook Ave, SW
Washington, DC 20375